What is claimed is:

1. An aerostat deployment apparatus comprising:

a container formed with an open end;

an aerostat having a first portion disposed within said container and a second portion disposed outside said container;

a means for inflating said second portion of said aerostat with lighter-than-air gas and drawing said first portion of said aerostat from said container for subsequent inflation outside said container; and

a means attached to said container and positioned at said open end for controlling an exit rate of said first portion of said aerostat from said container to maintain a pressure in said second portion of said aerostat to maintain said second portion of said aerostat taut during inflation.

2. An apparatus as recited in claim 1 wherein said controlling means comprises a friction sheet formed with an aperture, said aperture being surrounded by a surface to contact said first portion of said aerostat as said first portion exits said container.

3. An apparatus as recited in claim 2 wherein said container is substantially cylindrically shaped and defines a longitudinal axis, said aperture has a substantially circular perimeter, said friction sheet is positioned with said circular perimeter substantially centered on said longitudinal axis, and said first portion of said aerostat passes through said aperture to exit said container.

4. An apparatus as recited in claim 3 wherein said friction sheet is formed with an elastomeric material surrounding said aperture to contact said first portion of said aerostat as said first portion passes through said aperture.

5. An apparatus as recited in claim 4 wherein said elastomeric material is rubber.

6. An apparatus as recited in claim 1 further comprising:

a base; and

a means for attaching said container to said base to allow said container to independently rotate about a plurality of axes relative to said base.

7. An apparatus as recited in claim 6 wherein said container is substantially cylindrically shaped and defines a longitudinal axis, said container defines a transverse axis passing through said container and said longitudinal axis proximate said open end of said container, said attaching means is configured to allow said container to independently rotate relative to said base about said longitudinal axis and said traverse axis, and said base comprises a lighter-than-air gas reservoir for inflating said aerostat.

8. An apparatus as recited in claim 6 further comprising a weathervane mounted on said container to rotate therewith relative to said base, said weathervane for orienting said aerostat at a predetermined orientation relative to a wind direction during inflation.

9. A method for inflating and deploying an aerostat, said method comprising the steps of:

providing a container formed with an open end;

positioning a first portion of said aerostat within said container;

inflating a second portion of said aerostat with lighter-than-air gas outside said container to draw said first portion of said aerostat from said container for subsequent inflation outside said container; and

controlling the rate said first portion of said aerostat passes through said open end to maintain said second portion of said aerostat taut during inflation.

10. A method as recited in claim 9 wherein said controlling step is accomplished by forcing said first portion of said aerostat to contact and pass over a surface to establish a frictional force that acts to restrain the exit of said first portion from said container.

11. A method as recited in claim 10 wherein said surface is rubber.

12. A method as recited in claim 9 wherein said controlling step is accomplished by a friction sheet formed with an aperture, said aperture surrounded by a surface to contact said first portion of said aerostat as said first portion exits said container.

13. A method as recited in claim 12 wherein said container is substantially cylindrically shaped and defines a longitudinal axis, said aperture has a substantially circular perimeter, said friction sheet is positioned with said circular perimeter substantially centered on said longitudinal axis, and said first portion of said aerostat passes through said aperture to exit said container.

14. A method as recited in claim 13 wherein said friction sheet is formed with an elastomeric material surrounding said aperture to contact said first portion of said aerostat as said first portion passes through said aperture.

15. An apparatus for inflating and deploying a cloth aerostat, said apparatus comprising:

a container having an open end, said container for holding aerostat cloth in a substantially deflated configuration;

a source of lighter-than-air gas for inflating said aerostat cloth as said aerostat cloth exits said container; and

a friction sheet positioned at said open end of said container for controlling the exit rate of said aerostat cloth to maintain said inflated aerostat cloth taut.

16. An apparatus as recited in claim 15 wherein said friction sheet is formed with an aperture, said aperture being surrounded by a surface to contact said first portion of said aerostat as said first portion exits said container.

17. An apparatus as recited in claim 16 wherein said container is substantially cylindrically shaped and defines a longitudinal axis, said aperture has a substantially circular perimeter, said friction sheet is positioned with said circular perimeter substantially centered on said longitudinal axis, and said first portion of said aerostat passes through said aperture to exit said container.

18. An apparatus as recited in claim 17 wherein said friction sheet is formed with an elastomeric material surrounding said aperture to contact said first portion of said aerostat as said first portion passes through said aperture.

19. An apparatus as recited in claim 18 wherein said elastomeric material is rubber.

20. An apparatus as recited in claim 15 further comprising:

a base; and

a means for attaching said container to said base to allow said container to independently rotate about a plurality of axes relative to said base.

21. An apparatus as recited in claim 20 wherein said container is substantially cylindrically shaped and defines a longitudinal axis, said container defines a transverse axis passing through said container and said longitudinal axis proximate said open end of said container, said attaching means is configured to allow said container to independently rotate relative to said base about said longitudinal axis and said traverse axis, and said base comprises a lighter-than-air gas reservoir for inflating said aerostat.

22. An apparatus as recited in claim 20 further comprising a weathervane mounted on said container to rotate therewith relative to said base, said weathervane for orienting said aerostat at a predetermined orientation relative to a wind direction during inflation.